



**UNITED STATES DEPARTMENT OF COMMERCE
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211

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/415,467 10/08/99 BRUDNICKI

M 050-98-021

EXAMINER

IM52/0814

ALLIEDSIGNAL INC
LAW DEPARTMENT-M/S 36-2-76000
2525 WEST 190TH STREET
TORRANCE CA 90504-6099

MERCADO, J

ART UNIT

PAPER NUMBER

1745

6

DATE MAILED:

08/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/415,467

Applicant(s)

Brudnicki

Examiner

Jullan A Mercad

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on May 30, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above, claim(s) 10-22 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-9 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☒ Notice of Draftperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1 and 2

18) ☐ Interview Summary (PTO-413) Paper No(s) _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: _____

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DETAILED ACTION

1. Applicant's election with traverse of Group I in Paper No. 5 is acknowledged. The traversal is on the ground(s) that all the present claims recite a plurality of manifolds or port interfaces. This is not found persuasive because as discussed in the previous Office Action, the two separate inventions are found to have different modes of operation, different functions and different effects.

The requirement is still deemed proper and is therefore made FINAL.

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Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Maru (U.S. Pat. 4,444,851).

Maru teaches a fuel cell receptacle with a plurality of manifolds [41], a plurality of fuel cells [1] arranged in a stack and divided by spacers [71]. (Col. 2 line 33 *et seq*, col. 4 line 21 *et seq*). The fuel cell stack is positioned such that each fuel cell therein is in direct contact with a receptacle [51a]. (Col. 5 line 13 *et seq*) Each of ports [21a] is interfaced with the manifolds. (Col. 4 lines 21-24)

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4. Claim 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Linden (U.S. Pat. 4,176,213).

Van Linden teaches a fuel cell receptacle [1] with a plurality of manifolds [5a, 5b, 6a, 6b, 7a, 7b]. A plurality of fuel cells [8, 9] each have a plurality of ports [10a,b, 11a,b, 13a,b, 14a,b, 15a,b] disposed at its corners. (Col. 4 lines 57-62) Note that the manifolds are specifically disclosed to be interfaced, i.e. fluidly connected to the ports.

As to a staggered configuration, Van Linden specifically discloses that the fuel cell stack may be staggered in order to afford strengthening of the stack due to pressure increases. (Col. 3 lines 44-59)

5. Claims 1, 2, and 4-8 rejected under 35 U.S.C. 102(b) as being anticipated by Reichner (U.S. Pat. 4,876,163).

Reichner teaches a fuel cell receptacle [1] with a plurality of manifolds [29]. A plurality of fuel cells [2] each having ports [30] are positioned so that the ports are interfaced with the manifolds. The fuel cells are specifically disclosed to be shaped in a staggered or spiral stack. (Col. 3. line 8 *et seq*)

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Van Linden as applied to claims 1, 4, 6 and 7 above, or Reichner as applied to claims 1, 2 and 4-8 above.

The teachings of either Van Linden or Reichner are discussed above.

Regarding an O-ring seal for the port interface, the examiner takes Official Notice that O-ring seals are well-known in the art of fuel cell manifold assemblies and would have been obvious to the skilled artisan for reasons such as hermetically sealing the junction of a fuel cell port and manifold.

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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian A. Mercado whose telephone number is (703) 305-0511.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gabrielle Brouillette, can be reached at (703) 308-0756. The official fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599. The unofficial fax number is (703) 306-3429.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

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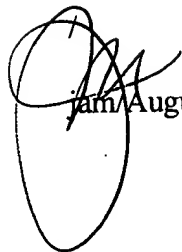
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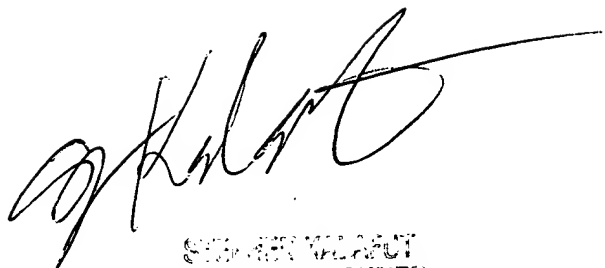
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A handwritten signature, possibly "Jain", written in black ink. The signature is stylized and appears to be written over the date.

Jain/August 10, 2001

A large, stylized handwritten signature in black ink, likely belonging to a Patent Examiner.

SENIOR PATENT
EXAMINER
GROUP

1700